

NODE=M228

D(2740)⁰

$$I(J^P) = \frac{1}{2}(?)$$

OMITTED FROM SUMMARY TABLE
 J^P consistent with unnatural parity (AAIJ 13CC).

D(2740)⁰ MASS				
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2737.0±3.5±11.2	7.7k	AAIJ	13CC LHCb	$p p \rightarrow D^*+ \pi^- X$

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NODE=M228M

NODE=M228M

NODE=M228W

NODE=M228W

NODE=M228215;NODE=M228

D(2740)⁰ WIDTH				
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
73.2±13.4±25.0	7.7k	AAIJ	13CC LHCb	$p p \rightarrow D^*+ \pi^- X$

NODE=M228W

DESIG=1;OUR EVAL;→ UNCHECKED ←

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad D^*+ \pi^-$	seen

NODE=M228PAM

NODE=M228PAM

D(2740)⁰ POLARIZATION AMPLITUDE A_{D_J}

A polarization amplitude A_{D_J} is a parameter that depends on the initial polarization of the D_J . For D_J decays the helicity angle, θ_H , distribution varies like $1 + A_{D_J} \cos^2(\theta_H)$, where θ_H is the angle in the D_J rest frame between the two pions emitted in the $D_J \rightarrow D^* \pi$ and $D^* \rightarrow D \pi$ decays.

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3.1±2.2	7.7k	¹ AAIJ	13CC LHCb	$p p \rightarrow D^*+ \pi^- X$
¹ Systematic uncertainty not estimated.				

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NODE=M228PAM;LINKAGE=A

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REFID=55581

D(2740)⁰ REFERENCES

AAIJ	13CC JHEP 1309 145	R. Aaij <i>et al.</i>	(LHCb Collab.)
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